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The Royal Society of London

PHILOSOPHICAL
TRANSACTIONS

Volume 16
1686-1692

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PHILOSOPHICAL TRANSACTIONS.

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VOL. XVI. For the Years 1686 and 1687.

L O N D O N:

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Church-yard. MDCLXXXVIII.

T O T H E
RIGHT HONOURABLE
J O H N
EARL OF CARBERY
PRESIDENT
O F T H E
ROYAL SOCIETY, &c.

This Sixteenth VOLUME
O F T H E
PHILOSOPHICAL TRANSACTIONS

Is Most Humbly Dedicated
By *EDMOND HALLEY.*

PHILOSOPHICAL TRANSACTIONS.

For March and April 1686.

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THE Preface. *An Account of a Voyage made by the Emperour of China into Corea and the Eastern Tartary in the Year 1682. Containing many Curious Observations and Discoveries, of the height of Mountains, Declination of the Compass, and of the Latitudes and Distances of several Places, through which he passed. A Relation of a second Voyage of the said Emperour into the Western Tartary, containing an exact Account of the Country, Government, Manners, and Customs of these People, and several Observations concerning the Miraculous Wall, and the Prodigious Height of some Mountains. An Explanation necessary to justifie the Geography supposed in these Accounts. Some Observations and Conjectures concerning the Character and Language of the Chinese, Made by R. H. Fellow of the Royal Society, together with the Characters and Method of their Numbers, and the Letters and Strokes out of which, both the Radical and also the Compounded and Decomposed Characters are constructed: with a Specimen of three Varieties of Characters or ways of Writing, made use of by them. The figure of the Roman Abacus, together with that of the Chinese now commonly made use of for the performing of all Arithmetical operations necessary for Trade.*

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(2.) *De Numero Radicum in Æquationibus Solidis ac Biquadraticis, sive tertiae ac quartæ Potestatis, earumq; limitibus, ex contemplatione intersectionum Circuli & Parabolæ datæ in Constructionibus hujusmodi æquationum tractatulus.*
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(3.) An Account of some Observations lately made at Nurenburg, by Mr. P. Wurtzel-baur; shewing that the Latitude of that Place, has continued without sensible alteration for 200 Years last past; as likewise the Obliquity of the Ecliptick; by comparing them with what was observed by Bernard Walther, in the Year 1487: Being a Discourse read before the *ROYAL SOCIETY*, in one of their late Meetings.

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PHILOSOPHICAL TRANSACTIONS.

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The C O N T E N T S.

1. *A N Advertisement.* (2.) *An Account of an Observation of an Eclipse of the Moon observed at Moscua in Russia on April 5. st. v. 1688. and compared with the same observed at Lipstick, whereby the Longitude of the former place is ascertained. Together with the Latitudes of several principal Places in the Empire of Russia.* (3.) *A Discourse concerning the most seasonable time of Felling Timber, written by the advice of the Honourable Sam. Pepys Esq; Secretary of the Admiralty, and presented to his late Majesty.* By Rob. Plot LL. D. and R. S. Soc. (4.) *A Description of the Pimenta or Jamaica-Pepper Tree, and of the Tree that bears the Cortex Winteranus, communicated by Hans Sloane M. D. and Reg. Soc. S.* (5.) *An account of the Circulation of the Watry Vapors of the Sea; and of the Cause of Springs: presented to the R. Society, By E. Halley.* (6.) *A Discourse concerning the Modern Theory of Generation, by Dr. George Garden of Aberdeen; being part of a Letter to Dr. Will. Musgrave LL. D. and R. S. Soc. and by him communicated to the Royal Society.* (7.) *Observatio Mercurii sub sole Visi, ultimo Octobris. 1690. st. vet. habita Noribergæ ab Astronomo accuratissimo. J. P. Wurtzelbaur, atque ab eodem cum Regia Societate communicata.* (8.) *An Account of*

PHILOSOPHICAL TRANSACTIONS.

For the Months of *March, April, May, and June, 1691.*

The C O N T E N T S.

1. **A** *N account of a large and curious Map of the Great Tartary lately Publish'd in Holland by Mr. Nicholas Witsen, being an Extract of a Letter from the Author thereof to the Honourable Sir Robert Southwell K^r. and President of the R. Society. (2.) A discourse tending to prove at what Time and Place Julius Cesar made his first Descent upon Britain: Read before the R. Society by E. Halley. (3.) A Receipt for the Curing of Castorium according to the method us'd in Russia. (4.) Observations on the making of Cochineal, according to a Relation had from an Old Spaniard at Jamaica, who had lived many years in that part of the West-Indies where great quantities of that rich Commodity are yearly made. (5.) Some Experiments made of the force and pressure of the Water in great Depths, made and Communicated to the R. Society by a Person of Honour. (6.) Lumbricus Hydropicus; or an Essay to prove that the Hydatides often met with in morbid Animal Bodies, are a Species of Worms or imperfect Animals. By that learned and curious Anatomist Edward Tyson, M. D. and R. Soc. S. (7.) De visibili Conjunctione Inferiorum Planetarum cum Sole, Dissertatio Astronomica, Authore E. Halley. (8.) Some Observations made on the Spawn of Frogs, and of the Production of Todpoles therein, by the learned and curious Richard Waller*

PHILOSOPHICAL TRANSACTIONS

For the Months of July, August and September, 1691.

The C O N T E N T S.

1. *THE Method the Indians in Virginia and Carolina use to dress Buck and Doe-Skins; as it was communicated to the Royal Society, by the Honourable Sir Robert Southwell Knt. Their President.* (2.) *Observationes Ponderis Testudinis terrestris, cum in Autumno Terram subiret, cum ejusdem ex Terra Verno tempore exeuntis pondere comparati, per plures annos repetitæ; Experimento Celeberrimi Domini D. Georgii Ent, Equitis & M. D. & à Doctissimo Domino D. Rob. Pitt. M. D. & R. S. S. communicatae.* (3.) *Emendationes & Notæ in tria Loca vitiosè edita in Textu vulgato Naturalis Historiæ, C. Pliniî, per E. Halley.* (4.) *An Account of the Measure of the Thickness of Gold upon Gilt-Wire, together with a Demonstration of the exceeding Minuteness of the Atoms or constituent Particles of Gold: as it was Read before the Royal Society, by E. Halley.* (5.) *Observationes aliquot rariores de Morboſo Liene, à Speciatissimo Domino D. Nehemia Grew, M. D. ac R. S. Socio, cum eadem Societate communicatae.* (6.) *An Account of a Book. Osteologia Nova, or some New Observations of the Bones, &c. Communicated to the Royal Society in several Discourses read at their Meetings, By the Learned and Accurate Author Clopton Havers, M. D. and R. S. Soc. Lond. 1691, Octavo for Sam. Smith*

PHILOSOPHICAL TRANSACTIONS.

October 19. 1692.

The C O N T E N T S.

1. *A* N Account of the several Species of Infinite Quantity, and of the Proportion they bear one to the other, as it was read before the Royal Society, by E. Halley. 2. *A Discourse concerning the Musical Notes of the Trumpet and Trumpet-Marine, and of the Defects of the same, by the Honourable Francis Roberts Esq; R. S. S.* 3. *An Account of the Cause of the Change of the Variation of the Magnetical Needle, with an Hypothesis of the Structure of the Internal parts of the Earth: as it was proposed to the Royal Society, in one of their late Meetings, by E. Halley.*